

Amendments to the Drawings:

The attached replacement drawing sheets makes changes to Figs. 8-17 and replaces the original sheets with Figs. 8-17.

Attachment: Replacement Sheets

REMARKS

Claims 1-51 and 54-99 are pending in this application. By this Amendment, claims 35, 37, 38, 40, 42, 43, 45-50, 56, 62-73 and 99 are amended. No new matter is added by these amendments. Claims 1-34 are withdrawn from consideration as being drawn to a non-elected group of claims. Claims 52 and 53 are canceled without prejudice to or disclaimer of the subject matter recited in those claims. Reconsideration of the application in view of the above amendments and the following remarks is respectfully requested.

The Office Action objects to the drawings for informalities and as failing to show every feature specified in the claims. The figures are amended to obviate the objection. Accordingly, Applicants respectfully request that the Examiner reconsider and withdrawal the objection to the drawings.

The Office Action objects to the specification for failing to provide proper antecedent basis for the claimed subject matter. Claim 62 has been amended to obviate this objection. Accordingly, Applicants respectfully request that the Examiner reconsider and withdrawal the objection to the specification.

The Office Action rejects claims 37, 38, 40, 42, 43, 47-49, 56, 63-76 and 99 under 35 U.S.C. § 112, second paragraph, as being indefinite. The claims are amended to obviate the rejection. Accordingly, Applicants respectfully request that the Examiner reconsider and withdrawal the 35 U.S.C. § 112, second paragraph, rejection of the claims.

The Office Action rejects claims 35, 37, 38, 40-51, 53-57, 61 and 63-76 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0041217 to Lee et al. (hereinafter "Lee"). Additionally, the Office Action rejects claims 36, 39, 52 and 62 under 35 U.S.C. § 103(a) as being unpatentable over Lee; rejects claims 58-60 under 35 U.S.C. § 103(a) as being unpatentable over Lee in view of U.S. Patent No. 5,874,760 to Burns Jr. et al. (hereinafter "Burns"); rejects claims 77-84, 86-93 and 95-98

under 35 U.S.C. §103(a) as being unpatentable over Lee in view of U.S. Patent No. 5,457,335 to Kuroda et al. (hereinafter "Kuroda"); rejects claims 85 and 94 under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Kuroda and further in view of U.S. Patent Application Publication No. 2002/0006058 to Nakajima et al. (hereinafter "Nakajima"); and rejects claim 99 under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Kuroda and further in view of U.S. Patent No. 5,659,499 to Chen et al. (hereinafter "Chen") . Applicants respectfully traverse these rejections.

The Office Action asserts that Lee discloses all of the features recited in independent claim 35. However, Lee does not disclose or suggest a transistor including at least "a gate electrode that applies a voltage for controlling conduction of the carriers flowing in the ferromagnetic semiconductor layer from the source to the drain," as recited in amended claim 35.

Lee, in Fig. 11 and paragraph [0059], teaches a spin-polarized field effect transistor with a gate electrode 103 and a two dimensional electron gas 105. The gate electrode of Lee controls conduction of the two dimensional electron gas 105. However, the gas 105 does not flow in a ferromagnetic semiconductor layer, as recited in claim 35. Thus, Lee does not teach or suggest "a gate electrode that applies a voltage for controlling conduction of the carriers flowing in the ferromagnetic semiconductor layer from the source to the drain," as recited in claim 35.

Burns, Kuroda, Nakajima and Chen, fail to disclose or suggest the above features, and therefore, fail to make up for the above noted deficiencies of Lee.

For at least the reasons above, Lee cannot reasonably be considered to teach or to have suggested the combination of all of the features recited in independent claim 35. Further, claims 36-99 would also not have been suggested by the applied references for at least the

respective dependency of these claims on allowable independent claim 1, as well as for the separately patentable subject matter that each of these claims recite.

Accordingly, reconsideration and withdrawal of the rejection of claims 35-99 under 35 U.S.C. §102(e) and §103(a) are respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 35-99 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:
Replacement Drawing Sheets

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